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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,557	11/07/2003	Kang Soo Seo	1740-000026/US	8241
30593 7590 06/01/2007 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER FINDLEY, CHRISTOPHER G	
			ART UNIT	PAPER NUMBER
			2621	
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			06/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/702,557	Applicant(s) SEO ET AL.	
	Examiner Christopher Findley	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/21/2004</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Independent claim 1 recites "A recording medium having a data structure for managing reproduction..." that fails to meet the statutory requirement set forth in the Interim Guidelines, Annex IV (a) and (b):

**(a) Functional Descriptive Material: "Data Structures" Representing
Descriptive Material Per Se or Computer Programs Representing
Computer Listings Per Se**

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.

The program has to be embodied in a *computer readable* medium. Claim 1 fails to recite this aspect.

(b) Nonfunctional Descriptive Material

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35

U.S.C. § 101. Certain types of descriptive material, such as music, literature, art, photographs and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter.

Claim 1 should be rewritten as either a method for encoding a video signal conforming to the data format structure presently described, or an apparatus which utilizes a computer readable medium containing video data conforming to the data format structure presently described, or a computer readable medium stored thereon a computer executable program with steps directed to encoding a video signal in the data format structure presently described.

Claims 2-11 are dependent upon claim 1.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. **Claims 1-3, and 12-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Kaneshige et al. (US 6360055 B1).**

Re claim 1, Kaneshige discloses a reproducing apparatus that both records video data onto and reproduces video data from a recording medium having a data structure for managing reproduction of at least multiple reproduction path video data recorded on

the recording medium (Kaneshige: column 1, line 61, through column 2, line 7), comprising: a data area storing clip files of at least a video data stream, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream (Kaneshige: Figs. 9A and 9B).

Re claim 2, Kaneshige discloses that the clip files are interleaved (Kaneshige: Figs. 9A and 9B).

Re claim 3, Kaneshige discloses that the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions (Kaneshige: Figs. 9A and 9B).

Claim 12 is the corresponding recording method implemented by the apparatus and computer readable medium of claim 1, and, therefore, has been analyzed and rejected with respect to claim 1 above.

Claim 13 is the corresponding reproducing method implemented by the apparatus and computer readable medium of claim 1, and, therefore, has been analyzed and rejected with respect to claim 1 above.

Re claim 14, Kaneshige discloses an apparatus for recording a data structure for managing reproduction of at least multiple reproduction path video data on a recording medium, comprising: a driver for driving an optical recording device to record data on the recording medium (Kaneshige: Fig. 14, pickup driver 104); an encoder for encoding at least multiple reproduction path video data (Kaneshige: column 4, lines 23-52); and a controller for controlling the driver to record clip files of at least a video data stream

output from the encoder in a data area of the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream (Kaneshige: column 4, lines 23-52).

Re claim 15, Kaneshige discloses an apparatus for reproducing a data structure for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising: a driver for driving an optical reproducing device to reproduce data recorded on the recording medium (Kaneshige: Fig. 14, pickup driver 104); a controller for controlling the driver to reproduce clip files of at least a video data stream from the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream (Kaneshige: Fig. 14, system controller 204).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneshige et al. (US 6360055 B1) in view of Inoshita et al. (US 7024102 B1).**

Re claim 4, Kaneshige discloses a majority of the features of claim 4 as discussed above concerning claims 1 and 2, but does not specifically disclose that the clip files have a size to prevent a reproducing apparatus buffer from under-flowing

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during reproduction of the clip files. However, Inoshita discloses an image data reproducing apparatus in which image data is reproduced from a computer readable medium, which stores multiple camera angles (Inoshita: Fig. 9) wherein all video objects are the same size (Inoshita: column 10, lines 52-56) and a buffer is managed to prevent either overflow or underflow (Inoshita: column 5, lines 45-54). Since both Kaneshige and Inoshita relate to reproducing image data stored on a disc, where the video objects (or cells) are interleaved from multiple camera angles, one of ordinary skill in the art at the time of the invention would have found it obvious to combine their teachings in order to reproduce multiple camera angles simultaneously for enhanced viewing (Inoshita: column 2, lines 27-32). The apparatus of Kaneshige, now implemented in conjunction with the apparatus of Inoshita, has all of the features of claim 4.

Re claim 5, arguments analogous to those presented for claim 4 are applicable to claim 5, and, therefore, claim 5 has been analyzed and rejected with respect to claim 4 above.

Re claim 6, the apparatus of Kaneshige, now implemented in conjunction with the apparatus of Inoshita, discloses that more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files (Inoshita: column 10, lines 52-56, all of the video object blocks are the same size, so

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when the alternate angle path exceeds the size of one video object block, the path contains more than one video object block), as in the claim.

Re claim 7, arguments analogous to those presented for claim 4 are applicable to claim 7, and, therefore, claim 7 has been analyzed and rejected with respect to claim 4 above.

Re claim 8, arguments analogous to those presented for claim 6 are applicable to claim 8, and, therefore, claim 8 has been analyzed and rejected with respect to claim 6 above.

Re claim 9, arguments analogous to those presented for claim 4 are applicable to claim 9, and, therefore, claim 9 has been analyzed and rejected with respect to claim 4 above.

Re claim 10, arguments analogous to those presented for claim 5 are applicable to claim 10, and, therefore, claim 10 has been analyzed and rejected with respect to claim 5 above.

Re claim 11, arguments analogous to those presented for claim 6 are applicable to claim 11, and, therefore, claim 11 has been analyzed and rejected with respect to claim 6 above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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- a. Information processing apparatus and method, recorded medium, and program

Kato et al. (US 20020150383 A1)

- b. Apparatus, method, and recording medium implementing audio gap information for an audio presentation discontinuous period

Okada et al. (US 20020031336 A1)

- c. Systems and methods with error resilience in enhancement layer bitstream of scalable video coding

Zhang et al. (US 20020021761 A1)

- d. Multiangle block reproduction system

Nakai et al. (US 5999698 A)

- e. Multi-scene recording medium and apparatus for reproducing data therefrom

Hirayama et al. (US 5732185 A)

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Findley whose telephone number is (571) 270-1199. The examiner can normally be reached on Monday-Friday 7:30am-5pm, Alternate Fridays off.

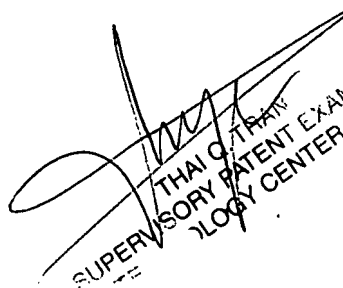
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Findley/


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